

# Internal Quality Assurance System in Indonesian Basic Education: A Systematic Literature Review

Iffa Afiralda<sup>1\*</sup>, Maskuri Bakri<sup>1</sup>, Mutiara Sari Dewi<sup>1</sup>, Siti Nur'ain Binti Ahmad Radzuanuddin<sup>2</sup>

<sup>1</sup>Islamic Education, University of Islam Malang, Indonesia

<sup>2</sup>Science Education, Universiti Teknologi MARA (UiTM), Malaysia

✉ Author Corresponding: [22302011022@unisma.ac.id](mailto:22302011022@unisma.ac.id)

## ABSTRACT

Improving the quality of basic education has become a strategic issue in the global and national development agenda. This study specifically investigates the implementation processes, thematic focus areas, and outcomes of the Internal Quality Assurance System (IQAS) in Indonesian basic education. Employing a qualitative Systematic Literature Review (SLR) methodology, the study synthesizes 45 papers from 2015 to 2025. These articles were selected using purposive sampling from Google Scholar, DOAJ, SINTA, and Scopus, based on predefined inclusion criteria (articles focused on IQAS in Indonesian basic education) and exclusion criteria (non-empirical papers, non-basic education levels, or unrelated quality systems). Data were collected through document analysis and examined using thematic analysis. The results are: (1) quality certification and accreditation mechanisms, (2) stakeholder participation and school leadership, (3) capacity building and professional development, and (4) integration of digital technologies in quality assurance. Most of the reviewed studies employed qualitative case study approaches. The implementation of IQAS has contributed to strengthening a culture of continuous improvement, enhancing student learning outcomes, and improving equity in access to quality education. These findings imply the need for stronger support for school leadership, greater collaboration in quality management practices, and systematic digital integration into quality assurance processes. The study contributes to the growing literature on education quality assurance and offers practical insights for school administrators and policymakers. Future research should examine implementation challenges in under-resourced or remote areas and evaluate the long-term effectiveness of digital tools in IQAS practices.

**Keywords:** Internal Quality Assurance System (IQAS); Quality Improvement; Indonesian Education.



### Article History:

Received: 02-07-2025

Revised : 19-08-2025

Accepted: 19-08-2025

Online : 22-08-2025

### How to Cite (APA style):

Afiralda, I., Bakri, M., Dewi, M. S., & Ahmad Radzuanuddin, S. N. B. (2025). Internal Quality Assurance System in Indonesian Basic Education: A Systematic Literature Review. *IJECA (International Journal of Education and Curriculum Application)*, 8(2), 282-296. <https://doi.org/10.31764/ijeca.v8i2.32857>



This is an open access article under the [CC-BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license

## 1. INTRODUCTION

Increasing the standard of basic education has emerged as a key concern on both the national and international development agendas (Azainil et al., 2018). The significance of inclusive learning and high-quality education for all children is emphasized by Sustainable Development Goal 4 (SDG 4) on a global scale (UNESCO, 2023). Nonetheless, many developing nations continue to struggle to guarantee equality and high-quality educational services, particularly at the foundational level (UNESCO, 2023). This also applies to Indonesia. Basic education has become more accessible over the past 20 years, but persistent issues include low student literacy and

numeracy, poor school quality, and inadequate education governance (Ministry of Education, Culture, Research, and Technology, 2022). The majority of fifth graders, according to the National Assessment Report, do not meet the basic requirements in reading and math, illustrating that expanding access does not equate to improved quality (The Nation's Report Card, 2024).

A mechanism that is internally driven and intended to guarantee Jannah et al. (2024) and improve the quality of education within educational units is the Internal Quality Assurance System, also known as *Sistem Penjaminan Mutu Internal (SPMI)* in Indonesia (Istihana & Naim, 2022; Sukasni, 2019; Yahya et al., 2023). In schools and other educational institutions, SPMI functions independently with the goal of creating a culture that is durable and marked by an unrelenting quest for quality enhancements (Cevin et al., 2025; Marlina et al., 2021; Nurani et al., 2024). Fundamentally, the approach seeks to establish quality assurance as an ingrained organizational culture that directs routine instructional procedures (Qarasyi et al., 2022), rather than only meeting external accrediting requirements (Harahap et al., 2023). The necessity for schools to consistently match their operations, instruction, and learning activities with the National Education Standards (Standard Nasional Pendidikan, or SNP) is the foundation for the system's acceptance (Azainil et al., 2018; Saini et al., 2020). This alignment ensures the educational outputs consistently meet nationally mandated quality benchmarks (Azainil et al., 2018; Kurniawan et al., 2019), helping schools achieve both standard compliance and competitive excellence (Hadi, 2021).

In response to these issues, the Indonesian government has launched various policies, one of which is strengthening the internal quality assurance system (IQAS) as part of the education unit-based quality improvement strategy (Jingura & Kamusoko, 2019; Santos & Abreu, 2019). Through the PPEPP cycle (Planning, Implementation, Evaluation, Control, and Improvement) (Ulfatin et al., 2021), this system is intended to support schools in carrying out self-evaluation (Wilian et al., 2020), quality improvement planning, improvement implementation, and ongoing control and monitoring (Peraturan Menteri Pendidikan Dan Kebudayaan Nomor 63 Tahun 2013, 2022). According to education experts, school-level quality management procedures and macro-level policies both influence the quality of education (Verma et al., 2021). In this regard, the use of IQAS is a tactical tool that can improve school administration's ability to handle change, track progress, and make adjustments in a methodical manner (Benz-Camino et al., 2022).

Several previous studies have highlighted the importance of quality assurance in educational units as an effort to meet national education standards and goals. Qarasyi et al. (2022) emphasized that IQAS in schools plays an important role in achieving national education standards, while Sounderajah et al. (2021) highlighted that internal quality audits in the public sector tend to focus on administrative outputs and are driven by compliance. Other studies have raised the practical dimensions of IQAS, such as the role of school supervisors (Pham et al., 2022), innovative learning strategies (Ulfatin et al., 2021), and the importance of communication in supervising the quality of education (Jingura & Kamusoko, 2019). However, existing studies remain fragmented and tend to focus on isolated aspects of IQAS, such as accreditation processes or school leadership, without offering a comprehensive synthesis of how IQAS is implemented holistically in Indonesian basic education. There is limited research that systematically explores the interplay between implementation strategies, contextual challenges (e.g., in remote or under-resourced schools), supporting factors (such as digital tools or stakeholder engagement), and their overall impact on education quality. This indicates a clear literature gap that needs to be addressed through a systematic and thematic review.

A systematic literature review (SLR) mapping the methods and results of IQAS implementation in Indonesian basic education is required to close this gap, offering an integrative

and evidence-based explanation grounded in the quality assurance in education framework and educational quality management theory. This study is new because it provides a systematic synthesis of empirical data from the past ten years, providing both conceptual understanding and useful suggestions for school-level policy enhancement and implementation tactics.

This study aims to systematically review the implementation of the Internal Quality Assurance System (IQAS) in Indonesian basic education by identifying key implementation patterns, challenges, supporting factors, and their impact on education quality. The objective is to provide evidence-based insights to inform the development of more effective school-based quality assurance policies and practices.

## 2. METHODS

This study adopts a Systematic Literature Review (SLR) approach, guided by the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework. The objective of an SLR is to identify, evaluate, and synthesize relevant research evidence related to a particular research question, theme, or phenomenon of interest (Dinter et al., 2021). This methodological approach is appropriate for mapping existing knowledge and identifying research gaps in the implementation of the Internal Quality Assurance System (IQAS) within Indonesian primary education.

The SLR process in this study consists of three main stages: review planning, review execution, and report writing (Pati & Lorusso, 2018; Xiao & Watson, 2019). Through these structured stages, the study systematically explores how IQAS has been applied in Indonesian basic education settings, what outcomes have been reported, and what challenges and enabling factors have been identified in the literature. To guide the review, the following Research Question (RQ) and Mapping Questions (MQs) were formulated:

Research Question (RQ): How is the Internal Quality Assurance System (IQAS) implemented in Indonesian primary education, and what are its documented practices, outcomes, challenges, and enabling factors?

Mapping Questions (MQs):

- a. MQ1: How many studies have been published in each database related to the implementation of IQAS in Indonesian primary education?
- b. MQ2: What keywords and terms are commonly used in the literature discussing IQAS in the context of basic education?
- c. MQ3: How are the selected studies distributed over time (by year of publication)?
- d. MQ4: What methodologies are used in the selected studies examining IQAS in primary education?
- e. MQ5: How is the Implementation of the Internal Quality Assurance System (IQAS) in Primary Education in Indonesia?
- f. MQ6: What are the reported outcomes or impacts of IQAS implementation on school quality, teacher performance, or student learning?

The sources reviewed in this study were selected from reputable academic databases, including Scopus, DOAJ, SINTA, and Google Scholar, covering the publication period between 2010 and 2024. The keywords used during the literature search included: "Internal Quality Assurance System," "IQAS," "school-based quality assurance," "basic education," "primary school," "SPMI," and "educational quality improvement in Indonesia." The unit of analysis in this study consists of

45 scientific documents, primarily peer-reviewed journal articles, along with a smaller number of conference proceedings that meet the inclusion criteria.

The review process involved several key stages. First, an initial search was conducted to identify potentially relevant articles (Xiao & Watson, 2019). All articles were screened based on their titles, abstracts, and keywords to determine relevance to the research focus (Dinter et al., 2021), with article and proceeding selection supported by *Publish or Perish 8* and thematic mapping using *VOSviewer*. Studies were included if they addressed the implementation, evaluation, or outcomes of IQAS in Indonesian basic education. Second, inclusion and exclusion criteria (Pati & Lorusso, 2018) were applied as the Table 1 follows:

**Table 1.** Inclusion and Exclusion Criteria

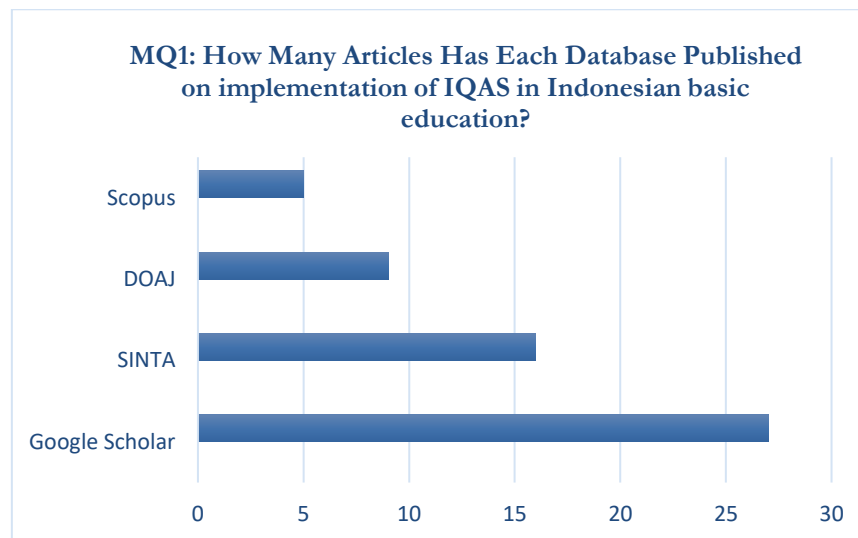
Inclusion Criteria	Exclusion Criteria
1. Articles published between 2010 and 2024.	1. Articles published before 2010 or outside the specified range.
2. Written in English or Indonesian.	2. Written in other languages without translation or abstract in English/Indonesian.
3. Discuss the implementation, practice, or outcomes of IQAS in basic/primary education in Indonesia.	3. Do not explicitly address IQAS or focus on non-primary/basic education levels (e.g., secondary, higher education).
4. Published in peer-reviewed journals, accredited proceedings, or academic repositories.	4. Derived from non-academic sources such as news reports, blogs, or opinion pieces.
5. Empirical studies (qualitative, quantitative, or mixed-method), literature reviews, or conceptual papers relevant to the topic.	5. Lacking research-based content (e.g., promotional documents or descriptive reports without analysis).
6. Accessible via institutional subscriptions or open access.	6. Not accessible due to paywalls or unavailable full-text versions.

Third, the chosen papers were subjected to thematic analysis (Holgado et al., 2020). Several important themes were the focus of the analysis: (1) IQAS implementation strategies in schools; (2) the roles of supervisors, teachers, and school leaders; (3) implementation challenges and constraints; (4) enabling factors and best practices; and (5) reported effects on indicators of educational quality like teacher performance, student learning outcomes, and school improvement planning. Lastly, a PRISMA flow diagram was employed to guarantee the review process's rigor and transparency. The number of records that were found, screened, evaluated for eligibility, and added to the final synthesis (Siddaway et al., 2019).

### 3. RESULT AND DISCUSSION

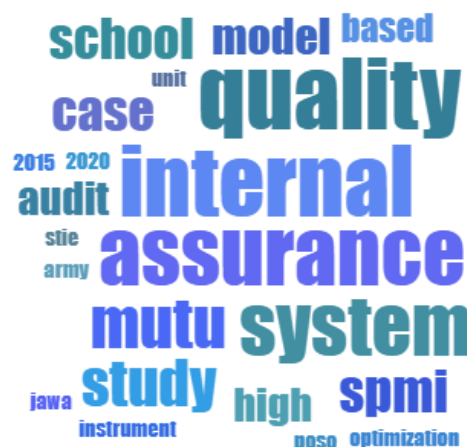
#### 3.1 Publication Trends, Common Keywords, and Research Methodologies on the Implementation of IQAS in Indonesian Basic Education (MQ1-4)

The selection of articles resulted in the distribution shown in Figure 1 below.



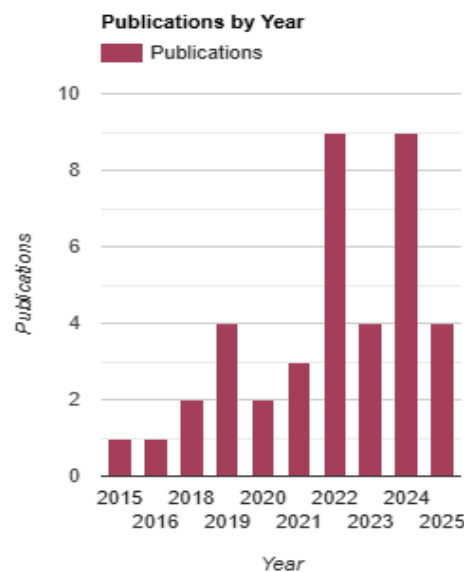
**Figure 1.** Results to the MQ1

The distribution of articles on the Internal Quality Assurance System (IQAS) implementation in Indonesian basic education among the four main academic databases Scopus, DOAJ, SINTA, and Google Scholar is shown in the above figure. The information shows a notable discrepancy in the number of publications. With more than 25 publications, Google Scholar leads the field. SINTA comes in second with about 16 papers, while DOAJ comes in third with about 9. Scopus displays the fewest, with only roughly five articles. A need for wider worldwide dissemination in internationally indexed journals is indicated by this distribution, which emphasizes the dominance of national and open-access platforms (such SINTA and Google Scholar) as important sources of research on IQAS in Indonesia. Then, the keywords used to search for articles related to this topic include terms related to the Internal Quality Assurance System (IQAS) and basic education in Indonesia. as shown in the following Figure 2.



**Figure 2.** Results to the MQ2

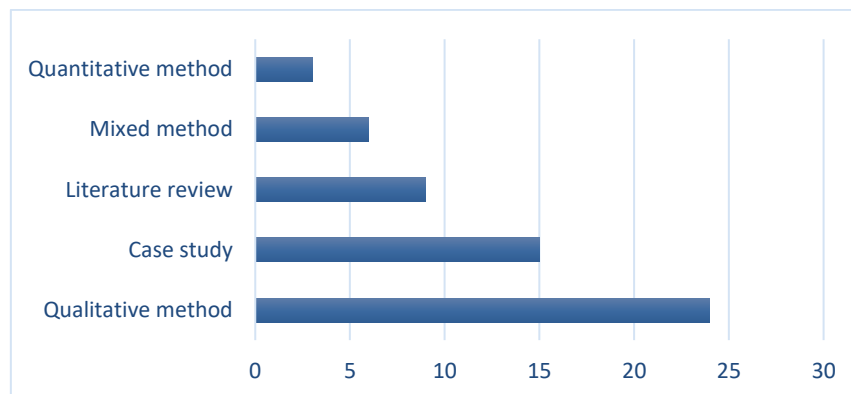
Based on figure above, the word cloud created from the titles and keywords of the articles examined in this study is shown in Figure 3. The terms "internal," "assurance," "quality," "system," and "*mutu*" (the Indonesian word for quality) appear most frequently, suggesting that internal quality assurance procedures are highly valued in the educational setting. Important terms like "study," "school," "model," "audit," and "SPMI" also imply that a large portion of the literature focuses on case studies, implementation models, and school quality audits. The theme focus of recent studies on bolstering internal quality assurance systems (IQAS) in Indonesian basic education is reflected in this graphic. The distribution of articles by year related to the Internal Quality Assurance System (IQAS) and basic education in Indonesia is as seen in the following Figure 3.



**Figure 3.** Results to the MQ3

The distribution of publications about the Internal Quality Assurance System (IQAS) deployment in Indonesian basic education from 2015 to 2025 is depicted in the bar chart. Beginning in 2019, there is a noticeable rising trend that peaks in 2022 and 2024, when each year saw nine publications. This suggests that IQAS-related issues had a spike in scholarly interest throughout these years. The small number of publications before 2019 indicates that there was not much study done on IQAS. The development pattern indicates that quality assurance systems in education are receiving more attention, especially in light of recent governmental reforms and the growing significance of digital transformation. Then, the methodology used by the author is as shown in Figure 4.





**Figure 4.** Results to the MQ4

The distribution of research approaches used in studies on the Internal Quality Assurance System (IQAS) implementation in Indonesian basic education is shown in the bar chart. With 24 studies using qualitative methodologies, it is clear that they dominate the research environment. With 15 studies, case study designs are very often used. Nine research use literature reviews, which is a moderate representation, while six studies use mixed techniques. On the other hand, only three research use quantitative approaches, making them the least used. Because quality assurance in educational settings is contextual and process-oriented, this trend indicates a significant preference for exploratory and descriptive approaches when analyzing IQAS processes.

A comparatively small but expanding corpus of literature on IQAS in the context of Indonesian basic education is shown by the bibliometric analysis (MQ1–MQ3). The research trajectory is still uneven, with a concentration of studies conducted after 2017, which corresponds with increased government mandates, despite the growing policy emphasis since the *Sistem Penjaminan Mutu Internal (SPMI)* was formalized (Rosdiana, 2025). According to this historical distribution, IQAS is still a relatively new field of study with a lot of unanswered questions, especially with longitudinal evaluations and comparisons between various kinds of educational establishments (Marlina et al., 2021).

Additionally, a greater emphasis on terms like "quality assurance," "school-based management," "educational standards," and "accreditation" is revealed by the keyword co-occurrence analysis (MQ2). Critical concepts like "organizational change," "capacity building," and "quality culture," which are essential to the long-term deployment of quality assurance systems worldwide, are conspicuously underexamined in the literature (Crissien-Borrero et al., 2019). This lack of vocabulary suggests that the existing literature may be conceptually limited, necessitating a more comprehensive theoretical approach.

### 3.2 Implementation of the Internal Quality Assurance System (IQAS) in Indonesian Basic Education (MQ5)

Based on the systematic review, the implementation of IQAS in basic education in Indonesia follows a continuous quality cycle consisting of Determination, Implementation, Evaluation, Control, and Improvement (DICE-PPEPP). The implementation is adaptive, taking into account the specific contexts of various schools, including public schools, madrasahs, Islamic boarding schools (pesantren), private schools, and vocational schools. This implementation will be illustrated in the following Table 2.

**Table 2.** Implementation of IQAS

<b>Aspect</b>		<b>Description</b>
<b>1. Operationalization of IQAS</b>		
<b>Key Steps</b>		
School Self-Evaluation (SSE)		Conducting self-evaluation based on the eight National Education Standards (SNP).
Internal Quality Assurance Team (IQAT)		Establishing a team responsible for managing the quality cycle, including planning, implementation, monitoring, evaluation, and follow-up actions.
Quality Improvement Plan (QIP)		Developing a quality improvement plan based on the SSE results and the National School Report (Rapor Mutu).
Quality Improvement Programs		Implementing programs such as teacher capacity building, pedagogical innovations, and enhancement of educational services.
Monitoring and Evaluation		Conducting regular monitoring and evaluation to ensure the achievement of targeted quality standards.
<b>2. Stakeholder and Human Resource Engagement</b>		
<b>Role of Stakeholders</b>		
School Principal		Acts as a quality leader who guides and manages the quality improvement process.
Teachers and Educational Staff		Serve as key actors in improving the quality of learning.
Local Government		Functions as a facilitator by providing policy support, resources, and capacity-building initiatives.
School Committee		Contribute to accountability processes and provide community support for quality improvement initiatives.

In religious-based institutions such as madrasahs and pesantren, the SPMI process is integrated with religious values and local cultural wisdom without compromising compliance with national standards. This approach enhances social acceptance and community participation. However, the implementation of SPMI in these institutions still faces several notable challenges:

- Limited resources, including financial, human, and infrastructural constraints, particularly in remote and underdeveloped areas.
- Insufficient understanding and capacity among school personnel regarding the concept of SPMI and quality management based on standards.
- Weak institutionalization of the IQAT, where in some schools, the team functions informally without formal legal support or adequate resources.
- Routine without innovation, where quality processes become mere administrative compliance, reducing motivation without sufficient capacity building or incentives.

The DICE-PPEPP cycle (Determination, Implementation, Evaluation, Control, and Improvement) is the basis for the IQAS operational framework in Indonesian basic education (Ulfatin et al., 2021). Although the majority of schools nominally follow this cycle, empirical research (MQ5) indicates that the degree of implementation varies significantly based on contextual factors such stakeholder participation, leadership commitment, and resource availability (Wartoni et al., 2023).

The conflict between transformative quality management and compliance-driven techniques is a prominent challenge (Crissien-Borrero et al., 2019). Instead of encouraging ongoing quality development, IQAS activities are frequently reduced to administrative tasks meant to meet accreditation criteria for many schools (Amirah & Konidin, 2023), particularly in rural, isolated,



and religiously based establishments (madrasahs and *pesantren*). This remark is in line with international criticisms of quality assurance programs that, when divorced from fundamental pedagogical processes, turn into bureaucratic endeavors (Zien et al., 2024).

Moreover, the weak institutionalization of Internal Quality Assurance Teams (IQAT) further undermines the sustainability of quality cycles (Baharun et al., 2021). In numerous cases, IQAT operates without formal legal mandates or sufficient resource allocation, functioning more as ad hoc committees rather than integral components of school governance structures (Anekawati et al., 2020). This structural fragility reflects broader systemic issues in Indonesian basic education governance, where decentralization policies have not been matched by adequate capacity-building investments.

### 3.3 The impact of IQAS Implementation on Educational and Learning Quality (MQ6)

Empirical findings indicate that the implementation of SPMI has had a significant impact on improving educational quality, both in terms of processes, learning outcomes, quality culture, and equitable access to education. These impacts are summarized and will be described in the following Table 3.

**Table 3.** Impacts of IQAS implementation

Aspect		Description
Impact on Learning Processes		Adoption of innovative teaching strategies, student-centered approaches, and digital learning tools. More effective and engaging learning environments.
Impact on Learning Outcomes		Higher school accreditation ratings. Improved national exam results. Enhanced graduate competencies aligned with the Eight National Education Standards (SNP). Better fulfillment of all SNP components: curriculum, process, assessment, teachers, infrastructure, management, financing, and graduate competence.
Impact on Quality Culture		Growth of a strong quality-oriented culture. Continuous self-evaluation and collaborative reflection. Increased openness to stakeholder feedback. Improved school resilience and adaptability to changing community needs and challenges.
Impact on Stakeholder Satisfaction		Increased satisfaction among students, parents, teachers, and the community regarding educational services. Higher trust in the school's quality improvements.
Impact on Equity and Access		Strengthened internal quality assurance in various education types (public schools, private schools, madrasahs, <i>pesantren</i> ). Digital tools (e.g., SIJAMIN, SIMUTU, LMS) enable real-time and transparent quality monitoring. Supports adoption of context-sensitive models for schools in disadvantaged, remote, and underdeveloped (3T) areas. Promotes equitable access to quality education.

The synthesis of empirical findings (MQ6) emphasizes how the use of IQAS has resulted in noticeable enhancements to student outcomes and learning procedures. Improved national exam scores (Qarasyi et al., 2022), higher accreditation statuses, and more robust graduate competencies in line with the National Education Standards (SNP) are all associated with enhanced pedagogical practices (Rais et al., 2021), which are defined by student-centered learning, digital tool integration, and collaborative teaching strategies (Benz-Camino et al., 2022).

The qualitative shift toward a quality culture is very remarkable, even beyond quantitative measures. Organizational resilience, adaptability, and a dedication to reflective practice are all

higher in schools that embrace the concepts of ongoing assessment and stakeholder involvement (Gani, 2021). This is in line with the larger body of research on quality assurance, which highlights that developing shared values and collective agency within educational communities is more important for lasting quality improvement than following procedures (Rasoul et al., 2019).

However, this positive trajectory is not uniformly distributed. Variability persists across school types, with private schools, madrasahs, and pesantren facing more significant challenges in embedding quality cultures due to limited financial resources (Aini et al., 2024), human capital constraints, and, in some cases, resistance to change rooted in traditional governance structures. These differences are not merely technical or administrative in nature, but deeply tied to structural inequalities, such as disparities in school funding formulas, uneven teacher distribution, and historical marginalization of certain school types within national education policy frameworks. For instance, many madrasahs and *Pesantren* operate under dual governance (religious and state), which often creates ambiguities in quality standards and weakens alignment with national IQAS mandates. Furthermore, schools in 3T (*terdepan, terluar, tertinggal*) regions often lack the managerial autonomy and institutional capacity needed to implement IQAS meaningfully, making compliance efforts more symbolic than substantive.

Then, the incorporation of digital technology, such as platforms like SIJAMIN, SIMUTU, and different Learning Management Systems (LMS), is one of the most noteworthy recent advancements in the deployment of IQAS (Cevin et al., 2025). Through automated reporting, evidence-based decision-making, and real-time data monitoring (Rais et al., 2021), these tools have a great deal of promise to improve quality assurance procedures (MQ5, MQ6).

However, the infrastructure preparedness of educational institutions and the digital competence of school staff are critical to the success of digital transformation (Ramadhan et al., 2021). Existing disparities in quality assurance capabilities are exacerbated in underprivileged or rural schools (3T regions), which frequently lack reliable internet connectivity, sufficient gear, and technical support. These gaps are often rooted in broader socio-economic inequalities and inconsistent policy implementation across regions. In many cases, schools with limited digital literacy among leaders and teachers are unable to interpret or utilize quality data effectively, leading to a mismatch between technological adoption and institutional readiness. Echoing findings from education systems in the Global South, this digital divide raises serious concerns about the risk of technocratic policies further marginalizing under-resourced schools (Spencer-Rodgers & Cortijo-Ocaña, 2015). Nonetheless, where effectively implemented, digital systems have been instrumental in fostering transparency, enhancing accountability, and enabling schools to adopt context-sensitive IQAS models. The use of real-time dashboards and data analytics facilitates more responsive interventions and supports a shift towards data-driven school management (Liku et al., 2022).

The findings of this study have a number of significant policy implications for the governance of basic education quality in Indonesia. First, it is necessary to strengthen the institutional framework through the formality of the existence of the Internal Quality Assurance Team (IQAT) in the school organizational structure. This legality must be accompanied by adequate funding allocation and professional development pathways for personnel involved in quality assurance. Without strong institutional support, IQAS is at risk of becoming merely an administrative activity that does not have a significant impact on improving the quality of education (Prestiadi et al., 2019). Second, the disparity in resources between schools in developed areas and in disadvantaged, outermost, and remote areas (3T) needs to be a priority for policy intervention.

The government needs to provide subsidies for strengthening digital infrastructure (Indana et al., 2024), training programs tailored to local needs, and an IQAS model that is contextual and sensitive to local socio-cultural conditions (Fiqih et al., 2023). Third, there is an urgent need to reformulate the quality assurance paradigm from merely an administrative accountability mechanism to a continuous professional learning process. IQAS must be positioned as a tool to encourage pedagogical innovation and teacher capacity development, not merely to fulfill regulatory obligations (Rosdiana, 2025). Fourth, in the context of digital transformation, policy formulation must ensure that the use of technology takes place in an inclusive and equitable manner. The digital platform developed needs to have features that can be accessed offline, a user-friendly interface, and multilingual support so that it can reach the entire education ecosystem, including schools with limited infrastructure. This approach, which is based on the principle of digital justice, is key to ensuring that the transformation of education quality does not widen the gap (Anekawati et al., 2020; Baharun, 2021), but rather becomes a bridge towards equitable and sustainable quality improvement.

### 3. CONCLUSION

This study concludes that the Internal Quality Assurance System (IQAS) serves as a key driver in improving the quality of basic education in Indonesia by fostering a culture of continuous improvement, strengthening stakeholder engagement, and supporting data-driven school management. While the integration of digital tools has enhanced the effectiveness of IQAS, significant disparities remain particularly in 3T regions due to limited infrastructure, funding, and professional capacity. The findings underscore the need for policy interventions that promote inclusive digital transformation, empower school leadership, and institutionalize collaborative quality governance. These contributions are critical for ensuring that IQAS functions not only as a compliance mechanism but as a catalyst for pedagogical innovation and equitable education reform.

Future research should focus on empirical investigations of IQAS practices in under-resourced settings to identify context-specific challenges and success factors. Priority should also be given to exploring the role of emerging digital technologies such as learning analytics and AI in enhancing the scalability and responsiveness of quality assurance. Comparative studies across different school types (e.g., public, private, madrasahs) and targeted research on leadership capacity development will be essential to deepen understanding and inform policy design.

### ACKNOWLEDGEMENT

This research was conducted as part of the academic activities at the University of Islam Malang in the field of Educational Quality Assurance. The author would like to express sincere gratitude to the lecturers of the Postgraduate Program in Islamic Education at the University of Islam Malang for their valuable support, guidance, and encouragement, which greatly contributed to the successful completion of this research.

## REFERENCES

- Aini, A. N., Aziz, I., & Suhono, S. (2024). The Role of Islamic Boarding Schools in Improving the Quality of Islamic Religious Education at MTs Nurul Qodiri Central Lampung. *International Journal on Advanced Science, Education, and Religion*, 7(1), 122-133. <https://doi.org/10.33648/ijoaser.v7i1.192>
- Amirah, C., & Konidin, T. (2023). Organizational Culture Analysis and Management Information Systems in Educational Environments. *Journal of Management, Economic, and Financial*, 1(2), 89-91. <https://doi.org/10.59261/jmef.v1i2.21>
- Anekawati, A., Otok, B. W., Purhadi, & Sutikno. (2020). Exploring the Related Factors in Education Quality through Spatial Autoregressive Modeling with Latent Variables: A Rural Case Study. *Education Research International*, 20(1), 8823186. <https://doi.org/10.1155/2020/8823186>
- Azainil, A., Apriliansi, N. U., & Suandie, S. (2018). Policy Evaluation Total Quality Management (TQM) School Applying International Organization for Standardization (ISO) in the City of Samarinda. *Journal of Educational Review and Research*, 1(1), 25-37. <https://doi.org/10.26737/jerr.v1i1.506>
- Baharun, H., Mundiri, A., Zamroni, Z., & Jannah, F. (2021). Quality Assurance of Education in Senior High School during Covid-19 Pandemic. *AL-ISHLAH: Jurnal Pendidikan*, 13(3), 356-365. <https://doi.org/10.35445/alishlah.v13i3.1190>
- Benz-Camino, M., Ramírez-Valdivia, M. T., Morales-Casetti, M., & Sirias, D. (2022). Lessons learned designing and implementing a quality assurance system in an industrial engineering school. *Quality Assurance in Education*, 31(3), 369-385. <https://doi.org/10.1108/QAE-06-2022-0119>
- Crissien-Borrero, T.-J., Velásquez-Rodriguez, J., Neira-Rodado, D., & Turizo-Martí-nez, L.-G. (2019). Measuring the quality of management in education. Review article. *Profesional de La Información*, 28(6), 467-475. <https://doi.org/10.3145/epi.2019.nov.04>
- Damini Saini, Damini Saini, Sunita Singh Sengupta, & Sunita Singh Sengupta. (2020). Ethics Courses Teaching Linkage to Quality Management Education. *Research Anthology on Business and Technical Education in the Information Era*, 9(2), 216-226. <https://doi.org/10.4018/978-1-7998-1017-9.ch012>
- Dedi Prestiadi, Wildan Zulkarnain, & Raden Bambang Sumarsono. (2019). Visionary Leadership in Total Quality Management: Efforts to Improve the Quality of Education in the Industrial Revolution 4.0. *Proceedings of the 4th International Conference on Education and Management (COEMA 2019)*. <https://doi.org/10.2991/coema-19.2019.40>
- Dwi Agus Kurniawan, Darmaji Darmaji, Mustiningsih Mustiningsih, Mustiningsih Mustiningsih, Imron Arifin, & Imron Arifin. (2019). Quality Management Education in the Industrial Revolution Era 4.0 and Society 5.0. *International Conference on Emerging Technologies*. <https://doi.org/10.2991/icet-19.2019.141>
- Fiqih, M., Thaha, A., Shidiq, S., Nafis, M. (2023). The Concept of Internal Quality Assurance in Madrasah Diniyah PP. Al-Hidayah Tanggulangin Sidoarjo. *Pengabdian: Jurnal Abdimas*, 1(1), 40-45. <https://doi.org/10.55849/abdimas.v1i1.150>
- Fransistya, P., & Hadi, S. (2021). Management of Quality Assurance (Quality Assurance) at State Vocational High Schools (SMKN)(Multi-Site Study at SMKN 2 and SMKN 3 Banjarbaru). *Journal of K6 Education and Management*, 4(3), 352-363. <https://doi.org/10.11594/jk6em.04.03.09>
- Gani, Abdul. (2021). Leveraging Emerging Technologies for Quality Management Education. *Handbook of Research on Future Opportunities for Technology Management Education*, 6(1) 73-87. <https://doi.org/10.4018/978-1-7998-8327-2.ch005>
- Holgado, A. G., Pablos, S. M., & Peñalvo, F. J. G. (2020). Guidelines for performing systematic research projects reviews. *IJIMAI*, 6(2), 136-144. <https://doi.org/10.9781/ijimai.2020.05.005>

- Indana, N., Mustofa, A., Qomar, M. (2024). Government Policy in Strengthening Education Quality Assurance in Islamic Education Institutions. *QALAMUNA: Jurnal Pendidikan, Sosial, dan Agama*, 16(1), 393-406. <https://doi.org/10.37680/qalamuna.v16i1.3245>
- Istihana, I., & Naim, A. (2022). The Implementation of Internal Quality Assurance Cycle in Private Senior High School. *Al-Idarah: Jurnal Kependidikan Islam*, 12(2), 195-206. <https://doi.org/10.24042/alidarah.v12i2.13321>
- Jannah, S., Karwanto, K. (2024). Implementation of an Internal Quality Assurance System (IQAS) in Vocational Schools. *IJORER: International Journal of Recent Educational Research*, 5(4), 877-890. <https://doi.org/10.46245/ijorer.v5i4.619>
- Jery Cevin, D. Gultom, & Latius Hermawan. (2025). Digitalisasi Sistem Penjaminan Mutu Internal (SPMI) untuk Institusi Pendidikan Berbasis Website. *MDP Student Conference*. <https://doi.org/10.35957/mdp-sc.v4i1.11183>
- Jingura, R. M., & Kamusoko, R. (2019). A competency framework for internal quality assurance in higher education. *International Journal of Management in Education*, 13(2), 119. <https://doi.org/10.1504/IJMIE.2019.098186>
- Liku, E., Simbolon, B., & Sinaga, D. (2022). Personal Development of Professional Teachers Total Quality Management (TQM) Approach in Improving the Quality of Education in SMP Negeri 2 Rantepao Toraja Utara Regency. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, 5(3), 24314-24325. <http://repository.uki.ac.id/10809/>
- Marlina, S., Harapan, E., & Kesumawati, N. (2021). Implementation of the internal quality assurance system (SPMI) in junior high school. *JPGI (Jurnal Penelitian Guru Indonesia)*, 6(2), 508-513. <https://doi.org/10.29210/021081jpgi0005>
- Ministry of Education, Culture, Research, and Technology. (2022). *The Centre of Excellence Vocational High School*. <https://partnership.kemdikbud.go.id/academic/read/the-centre-of-excellence-vocational-high-school>
- Muhammad Syahril Harahap, Syamsul Gultom, . Darwin, . Rosnelli, & Nur Hidayat Fithriyah. (2023). Kajian Implementasi Spmi (Sistem Penjaminan Mutu Internal) Sekolah dan Perguruan Tinggi di Indonesia. *Journal of Education and Development*, 11(1), 447-480. <https://doi.org/10.37081/ed.v11i1.4616>
- Naveed Bin Rais, R., Rashid, M., Zakria, M., Hussain, S., Qadir, J., & Imran, M. A. (2021). Employing Industrial Quality Management Systems for Quality Assurance in Outcome-Based Engineering Education: A Review. *Education Sciences*, 11(2), 345-352. <https://doi.org/10.3390/educsci11020045>
- Nispi Gustia Nurani, T. Hermina, & Irfan Nabhani. (2024). Sistem Penjaminan Mutu Internal (SPMI) Terhadap Peningkatan Manajemen Mutu Pendidikan dan Daya Saing Al Mashduqi Boarding School Garut. *Journal Of Entrepreneurship and Strategic Management*, 3(02), 82-89. <https://doi.org/10.52434/jesm.v3i02.419>
- Pati, D., & Lorusso, L. N. (2018). How to Write a Systematic Review of the Literature. *HERD: Health Environments Research & Design Journal*, 11(1), 15-30. <https://doi.org/10.1177/1937586717747384>
- Peraturan Menteri Pendidikan Dan Kebudayaan Nomor 63 Tahun 2013. (2022, February 16). <https://peraturan.infoasn.id/peraturan-menteri-pendidikan-dan-kebudayaan-nomor-63-tahun-2013/>
- Pham, N. T. T., Nguyen, C. H., Pham, H. T., & Ta, H. T. T. (2022). Internal Quality Assurance of Academic Programs: A Case Study in Vietnamese Higher Education. *SAGE Open*, 12(4), 21582440221144419. <https://doi.org/10.1177/21582440221144419>
- Qarasyi, A., Raharjo, T., & Yulianto, A. (2022). Implementation of School Work Plan (RKS) Based on Internal Quality Service Standards (SPMI) in Elementary Schools. *Educational Management*, 11(2), 186-193. <https://journal.unnes.ac.id/sju/eduman/article/view/66664>
- Ramadhan, A., Susetyo, B., & Indahwati, -. (2021). Classification Modelling of Random Forest to Identify the Important Factors in Improving the Quality of Education. *International Journal*



- on *Advanced Science, Engineering and Information Technology*, 11(2), 501–507. <https://doi.org/10.18517/ijaseit.11.2.8878>
- Rasoul, A. M., Jalali, R., Abdi, A., Salari, N., Rahimi, M., & Mohammadi, M. (2019). The effect of self-management education through weblogs on the quality of life of diabetic patients. *BMC Medical Informatics and Decision Making*, 19(1), 205–215. <https://doi.org/10.1186/s12911-019-0941-6>
- Rosdiana. (2025). Enhancing Education Quality: Internal Quality Assurance System in Indonesia Primary and Secondary Units. *International Journal of Science and Research*, 14(2), 1229–1231. <https://doi.org/10.21275/SR25219144657>
- Santos, R. S., & Abreu, A. J. P. da C. F. (2019). EFQM model implementation in a Portuguese Higher Education Institution. *Open Engineering*, 9(1), 99–108. <https://doi.org/10.1515/eng-2019-0012>
- Siddaway, A. P., Wood, A. M., & Hedges, L. V. (2019). How to Do a Systematic Review: A Best Practice Guide for Conducting and Reporting Narrative Reviews, Meta-Analyses, and Meta-Syntheses. *Annual Review of Psychology*, 70(Volume 70, 2019), 747–770. <https://doi.org/10.1146/annurev-psych-010418-102803>
- Sunderajah, V., Ashrafian, H., Rose, S., Shah, N. H., Ghassemi, M., Golub, R., Kahn, C. E., Esteva, A., Karthikesalingam, A., Mateen, B., Webster, D., Milea, D., Ting, D., Treanor, D., Cushnan, D., King, D., McPherson, D., Glocker, B., Greaves, F., ... Darzi, A. (2021). A quality assessment tool for artificial intelligence-centered diagnostic test accuracy studies: QUADAS-AI. *Nature Medicine*, 27(10), 1663–1665. <https://doi.org/10.1038/s41591-021-01517-0>
- Spencer-Rodgers, J., & Cortijo-Ocaña, A. (2015). Educational Research on Diversity and Quality Improvement in Education. *Journal of New Approaches in Educational Research*, 4(1), 1–1. <https://doi.org/10.7821/naer.2015.1.121>
- Sukasni, A. (2019). The Implementation and Discovery of Best Significant Indicators of High School Quality Particularly Both Quality Process. *Science*, 2(3), 128–147. <https://scholar.archive.org/work/6uckse3wtzhmbgyefkd6nbwi6e/access/wayback/https://ojs3.unpatti.ac.id/index.php/sciencenature/article/download/2119/1813/>
- The Nation's Report Card. (2024). *Trends in Reading Performance on the 2022*. <https://www.nagb.gov/naep/understanding-nations-report-card-2022-trends-research/reading.html>
- Ulfatin, N., Mukhadis, A., Zahro, A., A., Putra, A. N. R., & Argadinata, H. (2021). The Analysis of Education Standards Achievement in The Internal Quality Assurance System (IQAS). In *7th International Conference on Education and Technology (ICET 2021)* (pp. 155–162). Atlantis Press. <https://www.atlantis-press.com/proceedings/icet-21/125964527>
- UNESCO. (2023). *Global Education Monitoring Report* [UNESCO Digital Library]. Inclusive and Sustainable Cities. <https://unesdoc.unesco.org/ark:/48223/pf0000246230>
- van Dinter, R., Tekinerdogan, B., & Catal, C. (2021). Automation of systematic literature reviews: A systematic literature review. *Information and Software Technology*, 136, 106589. <https://doi.org/10.1016/j.infsof.2021.106589>
- Verma, S., Bhatia, T., Chakraborty, S., Beniwal, R. P., & Deshpande, S. N. (2021). Screening children and adolescents with mild to moderate intellectual disability for autistic symptoms with the Indian Autism Screening Questionnaire (IASQ). *Indian Journal of Psychiatry*, 10.4103/indianjpsychiatry.indianjpsychiatry\_903\_. [https://doi.org/10.4103/indianjpsychiatry.indianjpsychiatry\\_903\\_24](https://doi.org/10.4103/indianjpsychiatry.indianjpsychiatry_903_24)
- Wartoni, Suseno, M., Akbar, M., & Arifin, A. (2023). Impact Evaluation of the Internal Quality Assurance Systems on the Teacher Learning Quality in Indonesia. *Journal of Higher Education Theory and Practice*, 23(13). <https://doi.org/10.33423/jhetp.v23i13.6318>
- Wilian, S., Setiadi, D., & Sridana, N. (2020). Analysis of the implementation of internal quality assurance system in private islamic high schools in Mataram-Lombok. *4th Asian Education Symposium (AES 2019)*, 216–219. Atlantis Press.. <https://www.atlantis-press.com/proceedings/aes-19/125940298>



- Xiao, Y., & Watson, M. (2019). Guidance on Conducting a Systematic Literature Review. *Journal of Planning Education and Research*, 39(1), 93–112. <https://doi.org/10.1177/0739456X17723971>
- Yahya, Y., Jupriani, J., & ... (2023). Understanding of Report Card Quality and Principal's Leadership Regarding Preparation of School Work Plans in Public Elementary Schools West Pasaman Regency. *Eduvest-Journal of Universal Studies*, 3(7), 1244-1257. <https://doi.org/10.59188/eduvest.v3i7.841>
- Zien, N. H. R., Bakar, N. A. A., & Saad, R. (2024). Unveiling insights: A dataset analysis of Islamic quality management systems in educational institutions toward SDG-aligned education. *Data in Brief*, 54(2), 110343. <https://doi.org/10.1016/j.dib.2024.110343>